Central Case Index (CCI)

Dispelling the Confusion

- Provide Clarity
- What it is today?
- What we want it to be tomorrow?
- Where do we stand now?
- Overall Conceptual Enterprise Application Architecture

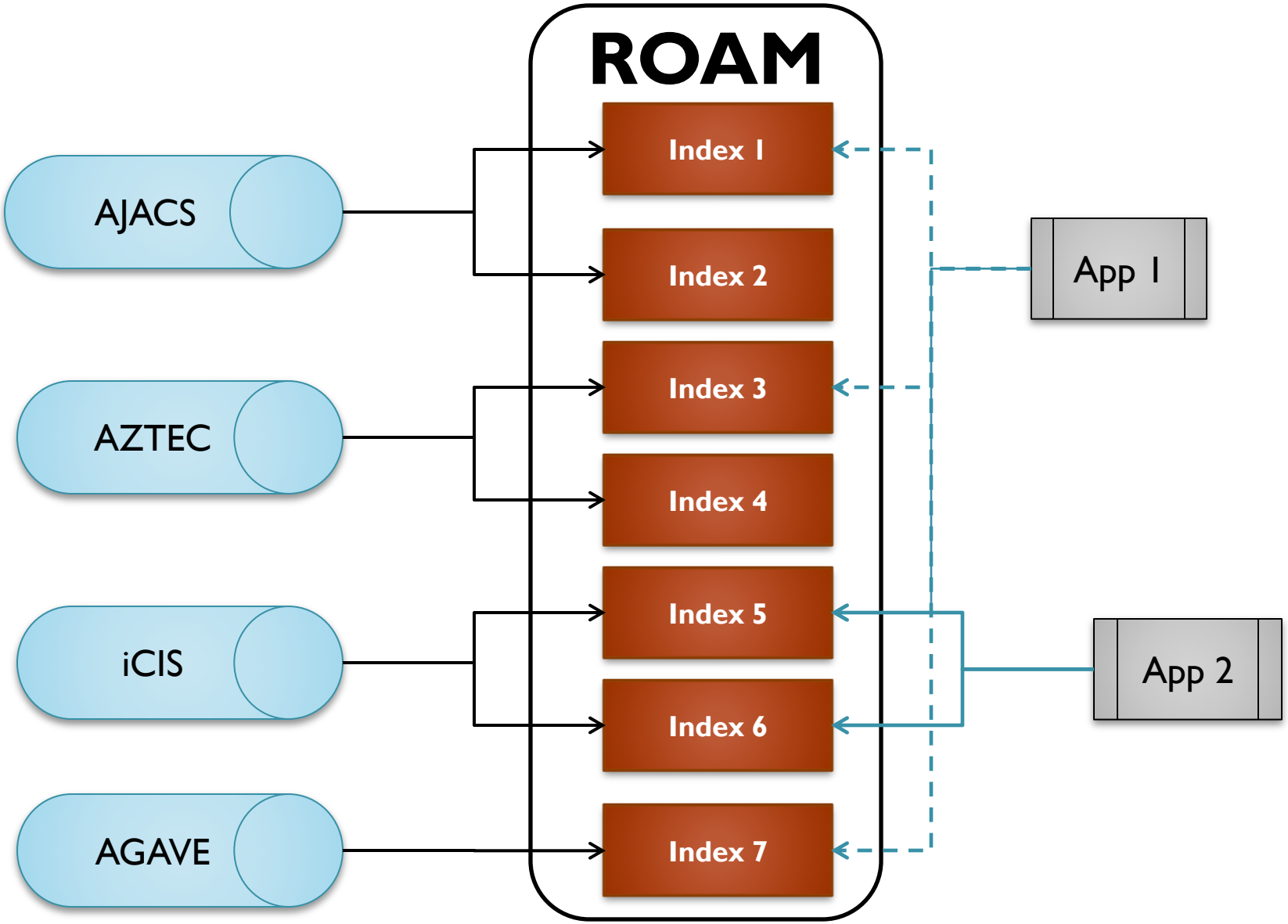
CCI "Today" Review

- ROAM Index Demo
- Current CCI Architecture
  - ROAM to CMS Direct Pull
    - Executed via Inline Query or Stored Procedure
      - TurboCourt Indexes (Production)
        - iCIS
        - Agave
      - sTRAC Indexes (Test)
        - AJACS (Pinal, Mohave)
- CCI Stats
- Issues / Trouble Points

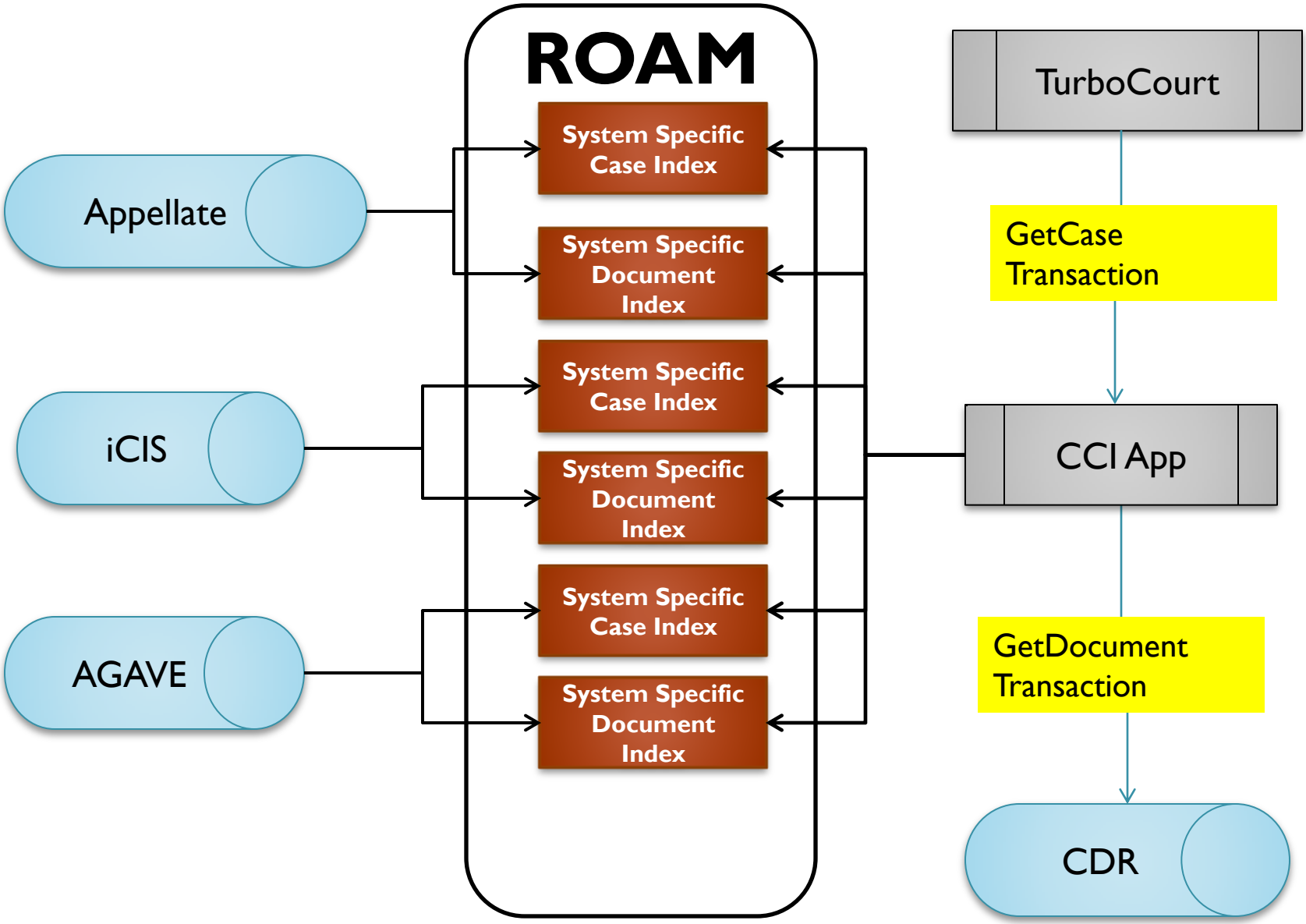
ROAM Index Demo

- ROAM DEMO:
- What is ROAM?
  - AMCAD's Rapid Online Access Method (ROAM)® based on Smart Data Layer technology, makes available a line of business application's structured databases (irrespective of underlying technology) much like an Internet Search Engine does with unstructured data.
- ROAM Features
  - Powerful search capability for any industry standard database
  - Optimized indexing and probability ranking algorithms to create and manage the index
  - Out of the box web templates based on HTML, JavaScript, JavaScript Object Notation (JSON)
  - Access to indexed data via Web Services using XML as standard
  - Data mining and business intelligence using filtering, graphs, charts and link diagrams

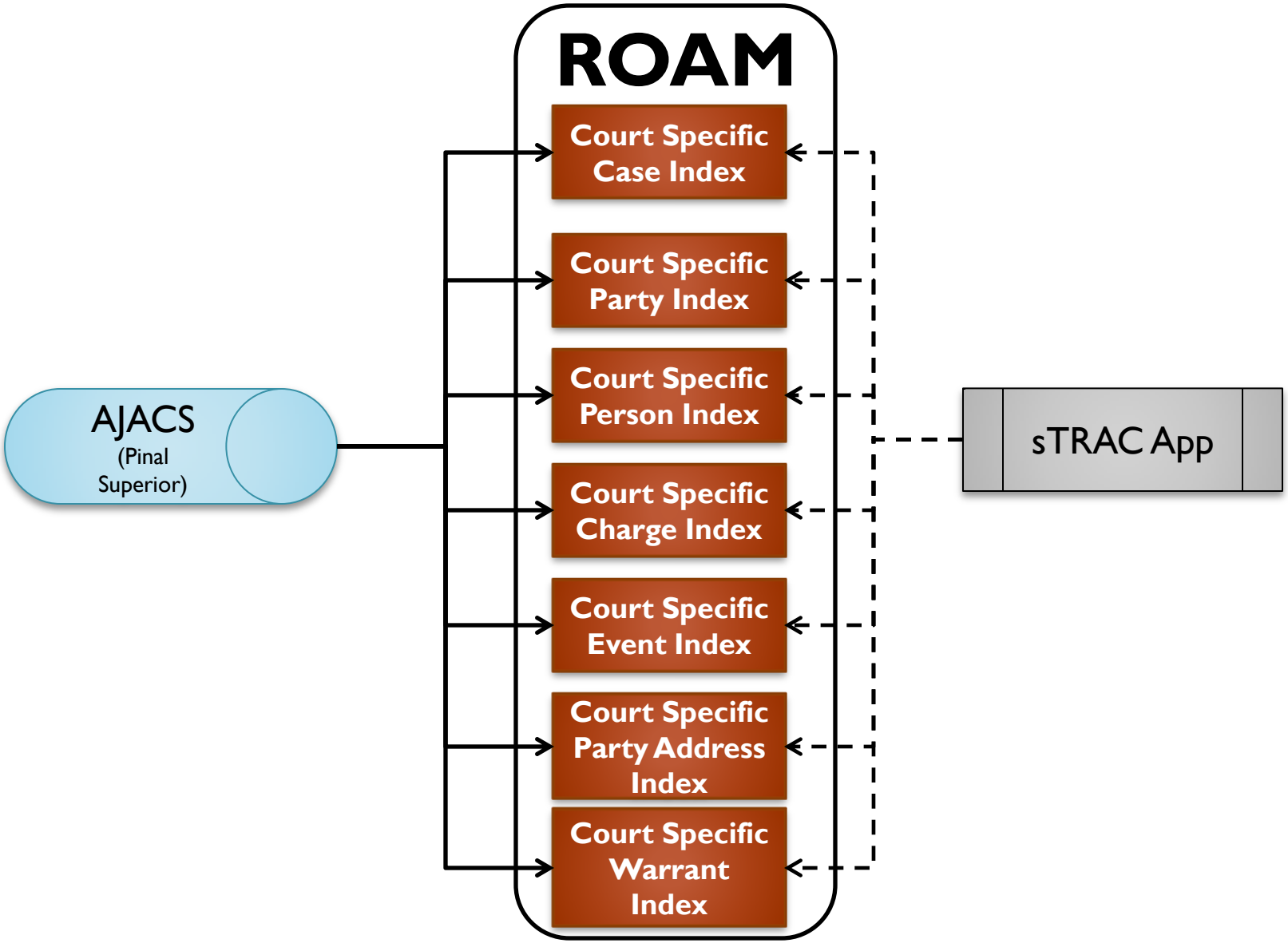
Current CCI Architecture



Current CCI Architecture – TurboCourt



Current CCI Architecture – sTRAC



CCI Stats – TurboCourt (Appellate)

CCI – TurboCourt (Appellate Production)		
Name	**Size(MB)**	**Number of Records**
CCI-Appellate -Case (cci-applacase)	21.49	49,113
CCI-Appellate -Documents (cci-documents)	103.88	251,889

CCI - TurboCourt - Appellate Case Index Usage Report for last 29 days 3 hours (as of November 14, 2011)	
Total Queries	1,627
Avg Time/Query	1.2440073 milliseconds

CCI Stats (continued)

CCI – sTRAC (Pinal Superior – TEST)		
Name	**Size(MB)**	**Number of Records**
CCI - Pinal Superior - Case TEST (cci1100casetst1)	44.55	182,134
CCI - Pinal Superior - Party TEST (cci1100partytst1)	214.49	720,204
CCI - Pinal Superior - Charge TEST (cci1100chrgtst1)	14.92	41,953
CCI - Pinal Superior - Event TEST (cci1100eventtst1)	1449.09	8,240,416
CCI - Pinal Superior - Party Address TEST (cci1100ptyadtst1)	615.03	2,428,369
CCI - Pinal Superior - Financial TEST (cci1100fncltst1)	61.68	408,610
ROAM - Pinal Superior - Warrant Info TEST (cci1100wrnttst1)	4.04	12,776

CCI Stats (continued)

Environment: Production	Number of Indexes	Size (MB)
TurboCourt – CCI – Appellate	2	127.62
TurboCourt – CCI – Pima (Agave)	2	0*
TurboCourt – CCI – MCJC (iCIS)	2	0*
Total Indexes:	6	127.62
* Note: Data will be loaded on 11/20		

Environment: Test	Number of Indexes	Size (MB)
TurboCourt – CCI – Appellate	4	96.74
TurboCourt – CCI – Pima (Agave)	4	1,515.19
TurboCourt – CCI – MCJC (iCIS)	4	66.45
sTRAC – CCI – Pinal (AJACS)	7	2,413.48
sTRAC – CCI – Mohave (AJACS)	7	3,021.94
Person Match – AJACS	3	0**
Total Indexes:	29	7,113.8
** Note: Data not currently loaded		

CCI Stats (continued)

Environment: Development	Number of Indexes	Size (MB)
TurboCourt – CCI – Appellate	6	103.27
TurboCourt – CCI – Pima (Agave)	3	1,424.32
TurboCourt – CCI – MCJC (iCIS)	11	2,822.46
sTRAC – CCI – Pinal (AJACS)	8	2,391.55
sTRAC – CCI – Mohave (AJACS)	8	3,558.37
CCI – Glendale Municipal (AZTEC)	5	424.47
Public Access	1	3,049.42
Misc – R & D	4	627.36
Total Indexes:	46	14,401.22

Issues / Trouble Points

ROAM is Great at FAST SEARCHING

ROAM is NOT so Great at…

- Index Processing Scheduling
  - Best Guess Timing = Not Effective
  - Cannot have a dependency between indexes when scheduling

- Duplicated data within system/court specific indexes.
  - No Re-usablility of Indexes for multiple applications
  - Each Court and System has a unique index currently, this leads to a massive number of indexes.

- Number of Indexes to Maintain
  - sTRAC-Warrant example:
    - 7 indexes per court X 15 Superior Courts
    - ***105 indexes*** – Just Superior Courts
  - Difficult to Management / Support

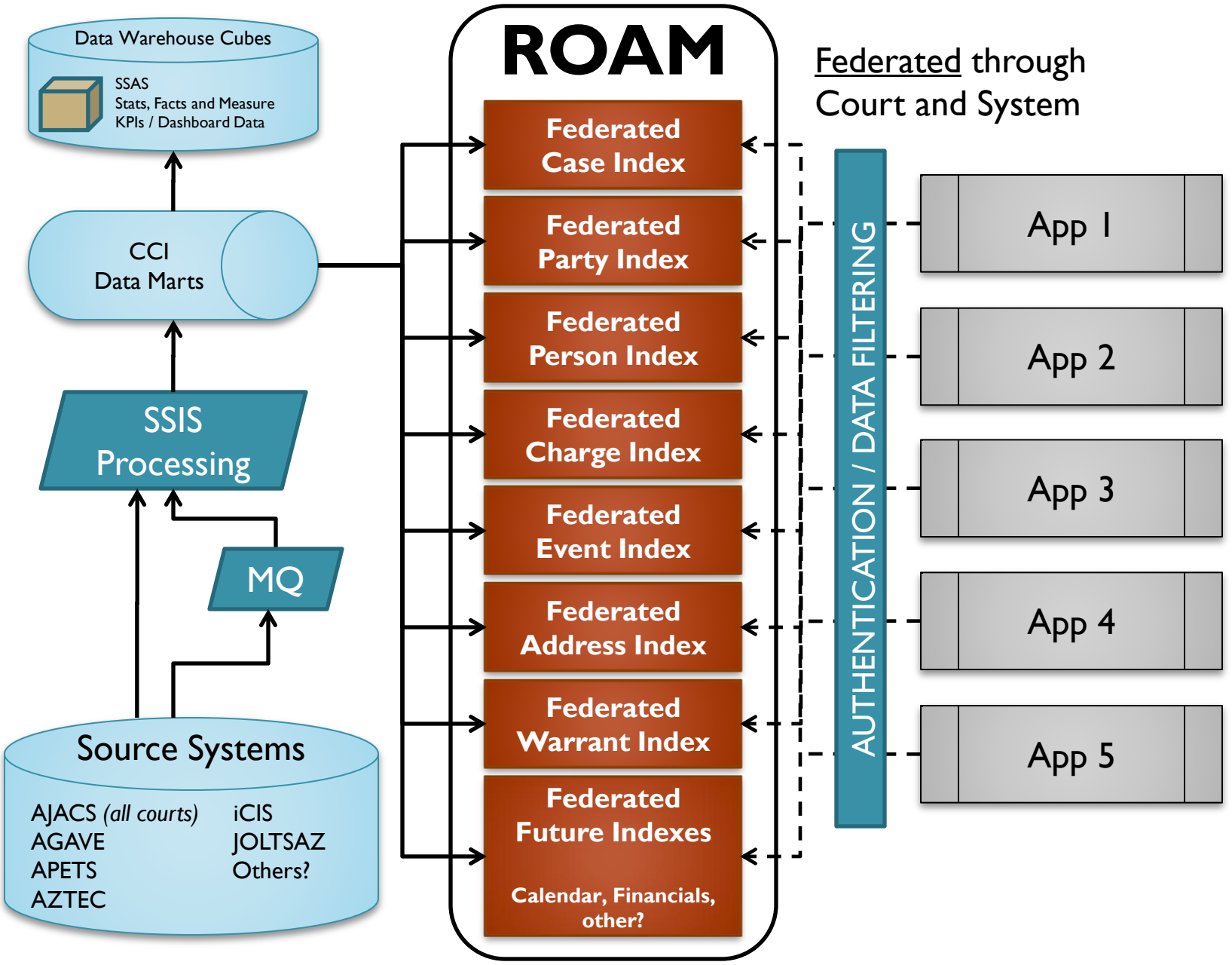
- Administration Interface
  - Bulk security is difficult to manage because it's done through manipulation of XML
  - Admin GUIs do not provide for bulk administration, everything is done one index at a time. When there are 100s of indexes…
  - No clear results when indexes fail to process correctly.

- Other Issues
  - Cannot Link indexes together without external interface.
    - Cannot link Case and Party without an application to get the key from the one, to retrieve from the other
  - No Where to put encapsulated business logic that can be reused by all indexes. (Retention Policy, rule 123, code mapping)
  - Federated Searches require index structures to be identical
    - i.e. AJACS / iCIS / AGAVE / Appellate would require same structure

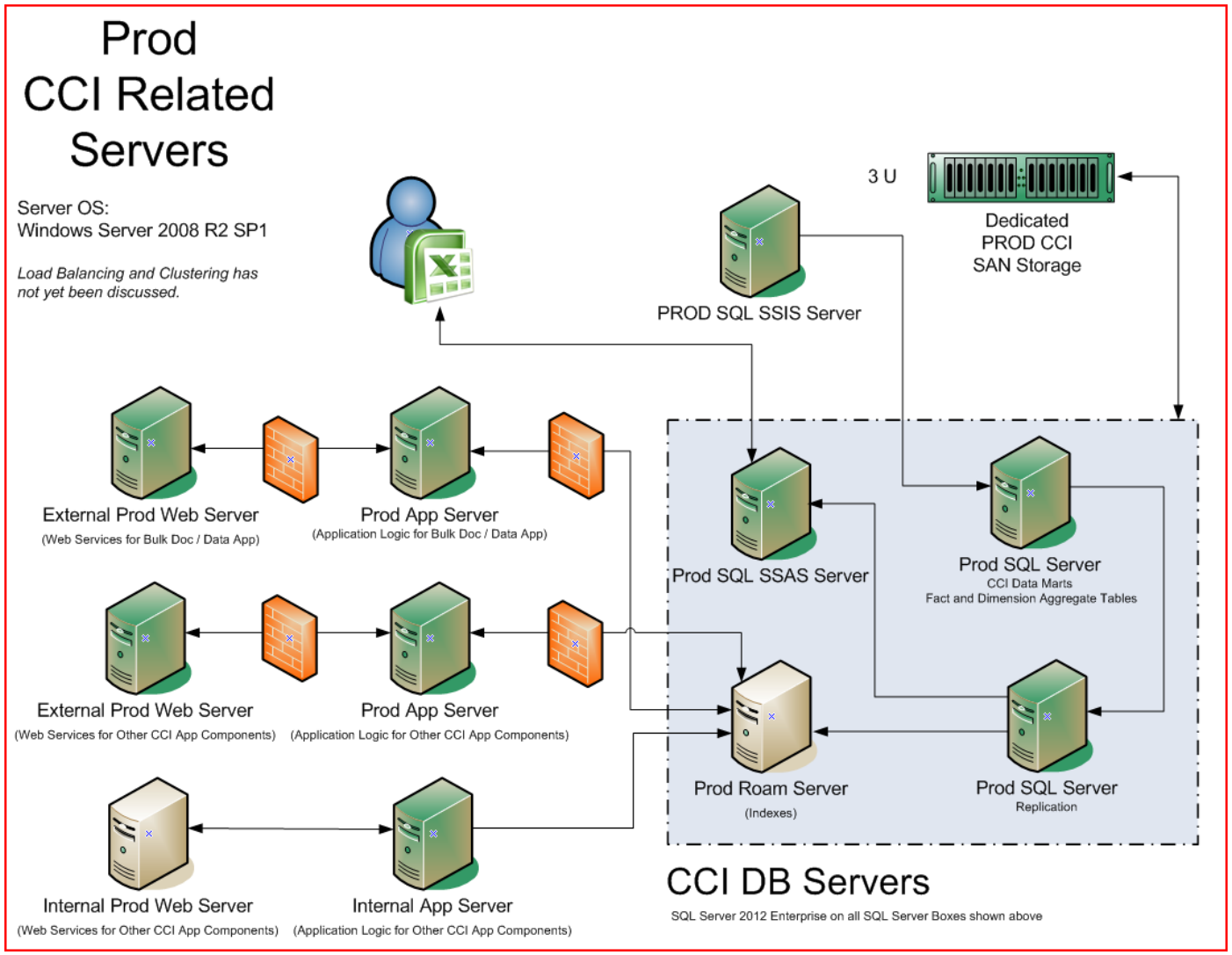
CCI of Tomorrow

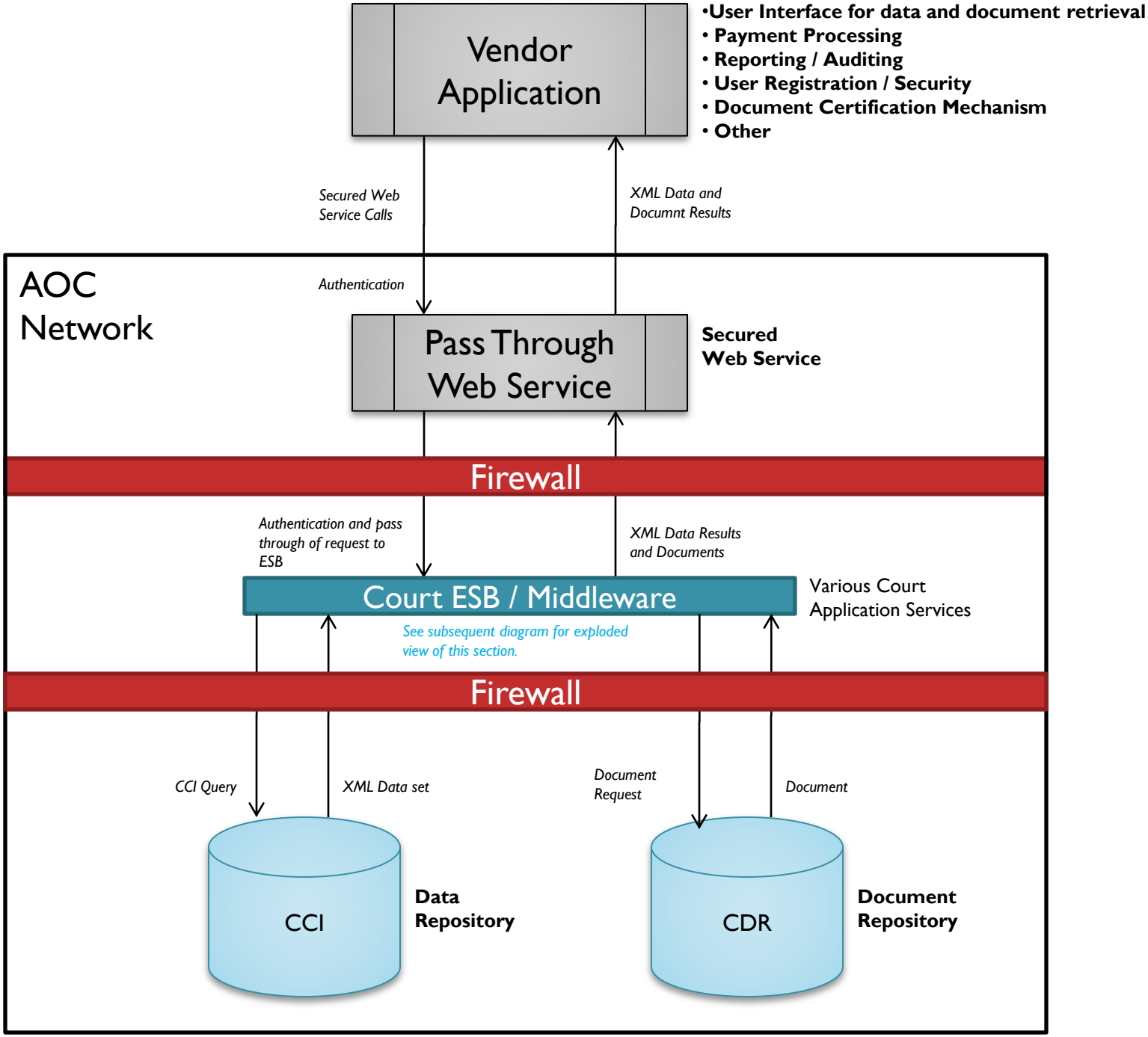
- Establishing a centralized SQL Data Mart
  - DW Replacement project (FARE, PA, CPOR, etc)
  - Normalized Data marts to be reused by various applications and filtered appropriately
- SSIS used to pull data from Source Systems into Data Mart(s)
  - True ETL tools, allowing for data manipulation if needed
  - Complex Scheduling ability
  - Ability to leverage direct pulls as well as other data transfer methods from source systems like MQ.
  - Ability to run business processes against data in Data Marts
    - Case Retention
    - Code Mapping
    - Rule 123
  - A tool we can actually find talent for!
- ROAM indexes pull against centralized Data Marts to simplify Indexing
  - Less Indexes, but Larger / Easier to Manage
  - Less Index Processing Scheduling via ROAM to manage

CCI of Tomorrow – Architecture

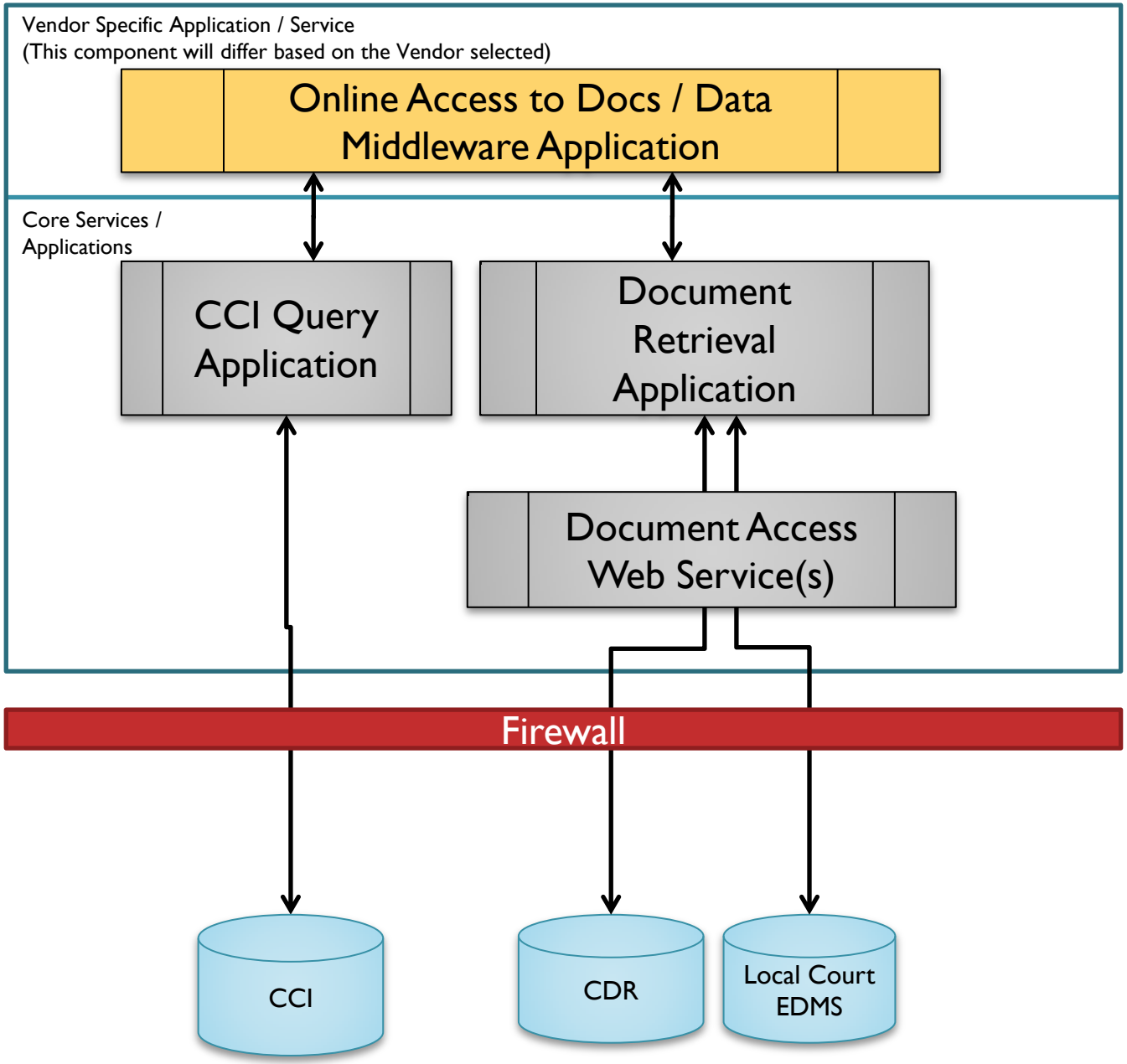


Draft CCI Hardware Diagram




Vendor Application
•User Interface for data and document retrieval
• Payment Processing
• Reporting / Auditing
• User Registration / Security
• Document Certification Mechanism
• Other
Secured Web Service Calls
XML Data and Documnt Results
AOC Network
Authentication
Pass Through Web Service
Secured Web Service
Firewall
Authentication and pass through of request to ESB
XML Data Results and Documents
Court ESB / Middleware
Various Court Application Services
See subsequent diagram for exploded view of this section.
Firewall
CCI Query
XML Data set
Document Request
Document
CCI
Data Repository
CDR
Document Repository

Court ESB / Middleware



SSIS Demo

- POC Demo
  - Basic Full Load
  - Incremental Insert, Update and Delete
- What is SSIS?
  - *Microsoft SQL Server 2008 provides a scalable enterprise data integration platform with exceptional ETL and integration capabilities, enabling organizations to more easily manage data from a wide array of data sources.*
- SSIS Features
  - *ENTERPRISE-READY PLATFORM*
  - *Deploy trustworthy and reliable ETL solutions*
  - *Easily integrate diverse data sources and destinations*
  - *Build efficient ETL solutions*
  - *Perform out-of-the-box, high-performance transformations*
  - *EXTENSIBLE AND CUSTOMIZABLE*
  - *Take advantage of a comprehensive development environment*
  - *Integrate with the Large SSIS community*

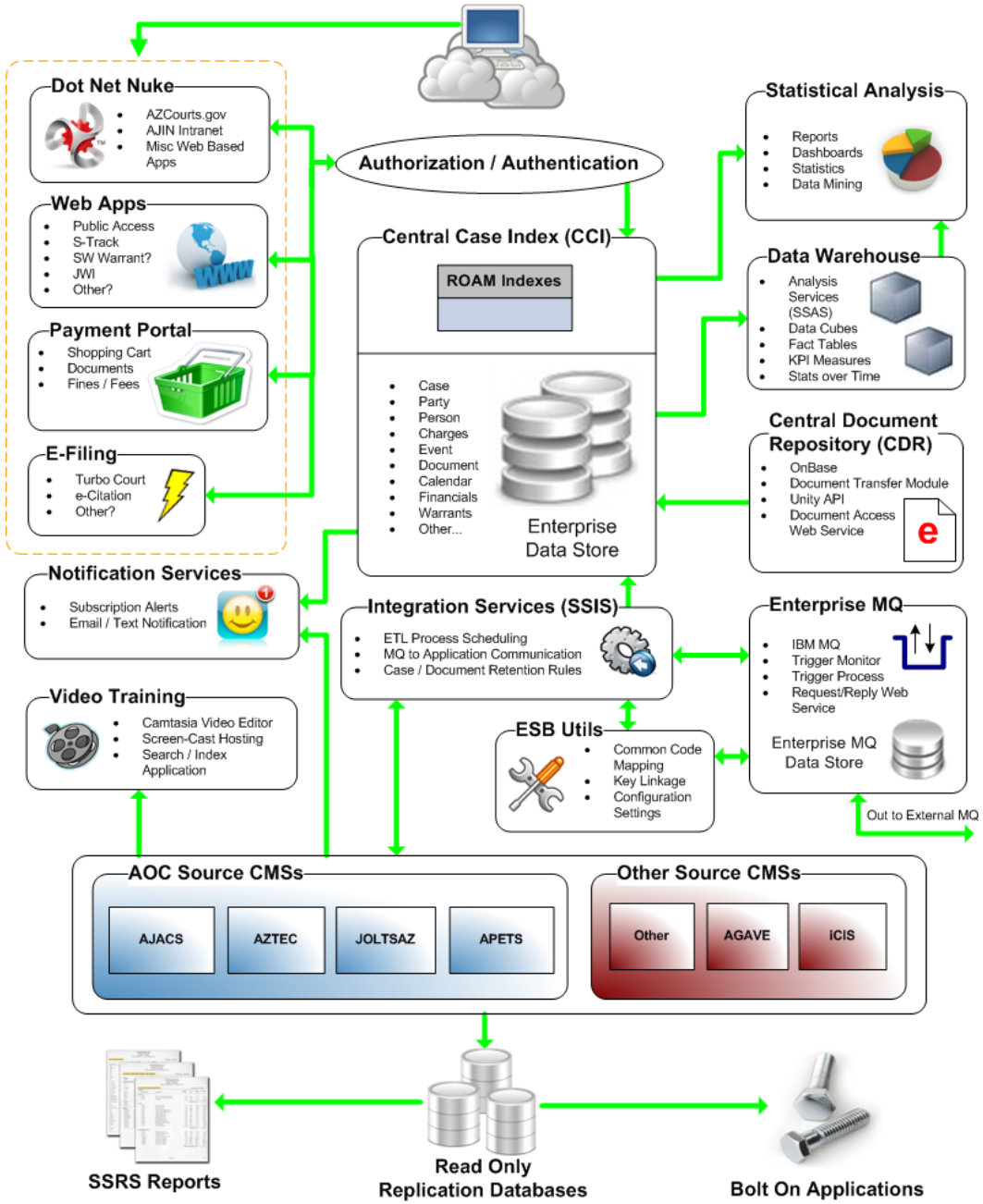
Where Do We Stand Now?

- Current Architecture Deployments
  - Turbo Court eFiling – In Prod and Test
    - Appellate Indexes in Production now
    - iCIS and Agave Case and Document Indexes will be live soon.
  - sTRAC – In Test
    - Testing to be completed in December, to be implemented soon after.
  - Stat Reports
    - AMCAD has delivered Criminal and is working through testing of it.
  - Person Matching in AJACS – In Dev
    - Unique Implementation – under review
  - Getting our feet wet with ROAM and SSIS
    - Getting some experience and ROI with ROAM!
    - However, we are pushing back on too many ROAM implementations under the current architecture to reduce impact on development efforts to switch to the new architecture when it is ready.

Where Do We Stand Now?

- Tomorrows Architecture
  - Full Blown SQL CCI / DW replacement design
    - Currently scheduled to begin design phase in February of 2012.
    - A complete replacement of the current Informix DW including FARE, PA, CPOR, and many other apps.
    - This would be the closest thing to a "CCI project" that we have.
  - Current project underway to leverage SSIS to ETL public access data from the Informix DW to a SQL data mart.
    - This project is needed to buy back some valuable disk space, processing power, and time on the aging AIX Server.
    - Gets our feet wet with SSIS
  - Researching which SQL Server 2012 (Denali) editions will be needed for this solution.
  - FY 2013 Budget planning for hardware and software will need to occur soon.

Conceptual Enterprise Application Diagram



Questions?